

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated below. The language being added is underlined ("___") and the language being deleted contains either a strikethrough ("——") or is enclosed by double brackets ("[[]]").

LISTING OF CLAIMS

1. (Currently Amended) A method for dynamic bin allocation, the method comprising:

obtaining link performance data based on a plurality of test transmissions between two network elements, wherein the plurality of test transmissions utilize at least one each of a plurality of transmission mode ~~modes~~ in each of a plurality of frequency ranges; ~~[[and]]~~

determining a desired transmission scheme, wherein each of the plurality of frequency ranges is designated for at least one of the ~~at least one~~ transmission mode modes based at least in part on the link performance data~~[[.]]; and~~

assigning the desired transmission scheme to a connection between the two network elements.

2. (Original) The method according to claim 1, wherein
the link performance data are obtained for each of the plurality of frequency ranges; and

the desired transmission scheme is determined by identifying a desired transmission mode for each of the plurality of frequency ranges based at least in part on the link performance data.

3. (Currently Amended) The method according to claim 2, wherein the test transmissions are based on ~~the at least one~~ each of the transmission ~~mode~~ modes.

4. (Original) The method according to claim 1, wherein the link performance data are obtained for each of a plurality of predetermined transmission schemes; and

the desired transmission scheme is selected from the plurality of predetermined transmission schemes based at least in part on the link performance data.

5. (Original) The method according to claim 4, wherein the test transmissions are based on the plurality of predetermined transmission schemes.

6. (Original) The method according to claim 1 further comprising communicating the desired transmission scheme to at least one of the two network elements and continue communications between the two network elements based on the desired transmission scheme.

7. (Original) The method according to claim 1, wherein the plurality of frequency ranges are defined based on a discrete multi-tone (DMT) modulation.
8. (Original) The method according to claim 1, wherein the plurality of frequency ranges are defined based on an orthogonal frequency division multiplexint (OFDM) technology.
9. (Original) The method according to claim 1, wherein the link performance data comprise at least one of:
 - a data rate;
 - an error rate;
 - a signal-to-interference ratio; and
 - a signal-to-noise ratio.
10. (Currently Amended) The method according to claim 1, wherein the ~~at least one~~ plurality of transmission modes ~~comprises at least one of:~~ comprises:
 - a full duplex mode;
 - an upstream-only mode; and
 - a downstream-only mode.
11. (Original) The method according to claim 1, wherein the test transmissions are performed at a maximum transmission power for each of the plurality of frequency ranges.

12. (Currently Amended) The method according to claim 1, wherein the ~~two~~ network elements communicate over connection further comprises a digital subscriber line (DSL).

13. (Currently Amended) A system for dynamic bin allocation, the system comprising a first network element and a second network element, wherein each of the first network element and the second network element comprises at least a processor module and a transceiver module that are coordinated to

obtain link performance data based on a plurality of test transmissions between the first network element and the second network element, wherein the plurality of test transmissions utilize ~~at least one~~ each of a plurality of transmission ~~mode~~ modes in each of a plurality of frequency ranges; [[and]]

determine a desired transmission scheme, wherein each of the plurality of frequency ranges is designated for ~~at least one~~ of the ~~at least one~~ transmission ~~mode~~ modes based at least in part on the link performance data[[.]]; and

assign the desired transmission scheme to a connection between the two network elements.

14. (Original) The system according to claim 13, wherein
the link performance data are obtained for each of the plurality of frequency ranges; and

the desired transmission scheme is determined by identifying a desired transmission mode for each of the plurality of frequency ranges based at least in part on the link performance data.

15. (Original) The system according to claim 13, wherein the link performance data are obtained for each of a plurality of predetermined transmission schemes; and

the desired transmission scheme is selected from the plurality of predetermined transmission schemes based at least in part on the link performance data.

16. (Currently Amended) A system for dynamic bin allocation, the system comprising:

means for obtaining link performance data based on a plurality of test transmissions between two network elements, wherein the plurality of test transmissions utilize ~~at least one~~ each of a plurality of transmission mode ~~modes~~ in each of a plurality of frequency ranges; ~~[[and]]~~

means for determining a desired transmission scheme, wherein each of the plurality of frequency ranges is designated for ~~at least one~~ of the ~~at least one~~ transmission mode ~~modes~~ based at least in part on the link performance data~~[[.]]; and~~

means for assigning the desired transmission scheme to a connection between the two network elements.

17. (Original) The system according to claim 16, wherein
the link performance data are obtained for each of the plurality of frequency
ranges; and

the desired transmission scheme is determined by identifying a desired
transmission mode for each of the plurality of frequency ranges based at least in part
on the link performance data.

18. (Original) The system according to claim 16, wherein
the link performance data are obtained for each of a plurality of predetermined
transmission schemes; and

the desired transmission scheme is selected from the plurality of
predetermined transmission schemes based at least in part on the link performance
data.

19. (Currently Amended) A computer readable medium having code for causing
a processor to perform dynamic bin allocation, the computer readable medium
comprising:

code adapted to obtain link performance data based on a plurality of test
transmissions between the first network element and the second network element,
wherein the plurality of test transmissions utilize ~~at least one~~ each of a plurality of
transmission ~~mode~~ modes in each of a plurality of frequency ranges; and

code adapted to determine a desired transmission scheme, wherein each of the plurality of frequency ranges is designated for ~~at least one of the at least one~~ transmission ~~mode~~ modes based at least in part on the link performance data[[]]; and code adapted to assign the desired transmission scheme to a connection between the two network elements.

20. (Original) The computer readable medium according to claim 19, wherein the link performance data are obtained for each of the plurality of frequency ranges; and

the desired transmission scheme is determined by identifying a desired transmission mode for each of the plurality of frequency ranges based at least in part on the link performance data.

21. (Original) The computer readable medium according to claim 19, wherein the link performance data are obtained for each of a plurality of predetermined transmission schemes; and

the desired transmission scheme is selected from the plurality of predetermined transmission schemes based at least in part on the link performance data.